

SECTION 333100 – INDUSTRIAL WASTEWATER PRETREATMENT

PART 1 - GENERAL

- 1.1 Any deviance from the following instructions must be approved during design by WVU Facilities Management.
- 1.2 Adhere to current Morgantown Ordinances, ARTICLE 921 Sewer Regulations and ARTICLE 923 Industrial Wastes.
- 1.3 Plan reviews by Morgantown Utility Board's, (MUB), Pretreatment Program Manager shall be scheduled through WVU's Project Manager and Environmental Health & Safety, (EH&S), Department.
- 1.4 A completed MUB Pretreatment Program Facility Questionnaire, project architectural and plumbing plans, and supporting documentation shall be completed by the A/E and given to the WVU Project Manager and EH&S. These documents shall be forwarded by the end of 60% Design and Development. The Questionnaire is attached in Paragraph 3.2.
 - A. This documentation shall be provided for all new facility and building construction projects requiring sewer taps to the MUB sanitary collection system.
 - B. This documentation shall be provided for all renovations or upgrades to existing facilities utilizing sanitary sewer taps to MUB's sanitary collection system and involve renovations to areas or equipment that discharge non-domestic sanitary sewage.
- 1.5 Facilities, buildings and projects that are required to comply with MUB's Industrial Pretreatment program must provide wastewater pretreatment and monitoring facilities as determined by MUB.

PART 2 - PRODUCTS

- 2.1 Acid Neutralizers, if required for maintaining a wastewater discharges pH between 6.0 and 9.0 standard pH units, shall be passive sump type with limestone media and be installed exterior of the building footprint within a below grade concrete vault accessible by a round manhole cover.
- 2.2 Wastewater monitoring manholes, as required by MUB's Pretreatment Program Manager, shall be provided exterior to the building footprint. Monitoring manholes must meet the approval of MUB and WVU EH&S and must meet the following minimum requirements:
 - A. Monitoring manholes shall be installed in an easily accessible location. As conditions allow, manhole locations must avoid existing means of egress, paths of pedestrian travel, and roadways.

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- B. Monitoring manholes shall be located and installed to provide laminar flows. Manholes shall be installed the greater of either; a minimum of 10 times the inside diameter (ID) of the sanitary sewer or 6 feet downstream from elbows, other manholes, changes in direction, other sewer taps or any other features that disrupt the laminar flow.
- C. Integral open channel flumes shall be provided in monitoring manholes by installing a pre-cast concrete manhole at the middle of one full length piece of plastic sanitary sewer pipe so that pipe joints are no closer than 3 feet from the influent and effluent sides of the manhole. After installation of the pre-cast manhole, access to the sanitary flow shall be made by cutting away the top 1/3 of the plastic PVC pipe to within 6 inches of the pre-cast concrete manhole interior vertical walls. Concrete shall be used to fill the space between the exterior of the PVC pipe and the interior wall of the pre-cast concrete manhole. Concrete shall be troweled smooth and sloped to drain sewer surcharges back into the PVC pipe opening.
- D. A Bilco Type K, Model K-4, aluminum, 3' x 3', hinged, flat manhole cover or equivalent shall be provided for monitoring manhole access.
- E. Access door hinges shall be installed facing the closest sidewalks or pedestrian ways in proximity of the monitoring manhole. This installation orientation must result in having the open lid being located between the manhole opening and potential pedestrian traffic.
- F. Top ladder rung within manhole shall be located to provide a minimum opening that allows a 2.5 foot diameter cylinder into the monitoring manhole.

PART 3 - EXECUTION

- 3.1 If approved by WVU Facilities Management personnel, acid neutralizers and wastewater monitoring facilities installed within facilities must be located and installed to provide access at all times for maintenance and monitoring.
- 3.2 Questionnaire starts on next page.

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INDUSTRIAL WASTE QUESTIONNAIRE

GENERAL INFORMATION

Standard Industrial Classification Code (SIC) 8220/ Colleges & Universities

Company Name.

Mailing Address

Address of Premises

Name and Title of Signing Official

Contact Official

Name

Title

Address

Phone

The information contained in this questionnaire is familiar to me and to the best of my knowledge and belief, such information is true, complete and accurate.

Date

Signature of Official

PLANT OPERATIONAL CHARACTERISTICS

Brief description of manufacturing or service activity on premises:

Principal Raw Materials Used:

Catalysts, Intermediates:

Principal Product or Service (use Standard Industrial Classification Manual if appropriate)

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Type of Discharge: _____ Batch _____ Continuous
 If batch, average number of batches per 24 hours _____

Is there a scheduled shutdown?

When?

Is production seasonal?

If yes, explain indicating month(s) of peak production

Average number of employees per shift: _____ 1st; _____ 2nd; _____ 3rd

Shift start times: _____ 1st; _____ 2nd; _____ 3rd

Shifts normally worked each day:

	Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.
1st	_____	_____	_____	_____	_____	_____	_____
2nd	_____	_____	_____	_____	_____	_____	_____
3rd	_____	_____	_____	_____	_____	_____	_____

Describe any wastewater treatment equipment of processes in use:

Raw Water Sources:

Source	Quantity
_____	_____ gallons per day
_____	_____ gallons per day
_____	_____ gallons per day

Describe any raw water treatment process in use:

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List Water Consumption in Plant

Cooling Water _____ gallons per day
Boiler Feed _____ gallons per day
Process Water _____ gallons per day
Sanitary System _____ gallons per day
Contained in Product _____ gallons per day
Other _____ gallons per day

List average volume of discharge or water loss to

City Wastewater Sewer _____ gallons per day
Natural Outlet _____ gallons per day
Waste Hauler _____ gallons per day
Evaporation _____ gallons per day
Contained in Product _____ gallons per day

Is discharge to Sewer: _____ Intermittent _____ Steady

Temperature _____ Total Suspended Solids (TSS) _____
5 Day BOD _____ pH _____

List plant sewer outlets, size, flow (attach and refer to map):

Is there a Spill Prevention Control and Countermeasure Plan in effect for this plant?

_____ Yes _____ No

Are any of the toxic pollutants listed in Table 1 being used at this facility in manufacturing of the product or is a by product which may be discharged? If so, please indicate by a check mark on Table 1.

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TABLE - 1

65 TOXIC POLLUTANTS LISTED IN CONSENT DECREE AND
REFERENCED IN 307(a) OF THE CWA OF 1977

Ancenaphthene	Endrin and metabolites
Acrolein	Ethylbenzene
Acrylonitrile	Fluoranthene
Aldrin/Dieldrin	Haloethers
Anitmony and compounds	Halomethanes
Arsenic and compounds	Heptachlor and metabolites
Asbestos	Hexachlorobutadiene
Benzene	Hexachlorocyclopentadien
Benzidine	Hexachlorocyclohexane
Beryllium and compounds	Isophorone
Cadmium and compounds	Lead and compounds
Carbon tetrachloride	Mercury and compounds
Chlordane	Naphthalene
Chlorinated benzenes	Nickel and compounds
Chlorinated ethanes	Nitrobenzene
Chlorinalkyl ethers	Nitrophenols
Chlorinated naphthalene	Nitrosamines
Chlorinated phenols	Pentachlorophenol
Chloroform	Phenol
2-chlorophenol	Phthalate esters
Chromium and compounds	Polychlorinated byphenyls (PCB)
Copper and compounds	Polynuclear aromatic
Cyanides	Hydrocarbons
DOT and metabolites	Selenium and compounds
Dichlorobenzenes	Silver and compounds
Dichlorobenzidine	2, 3, 7, 8,-Tetrachlorodibenzo-
Dichlorethylenes	p-dioxin (TCDD)
2, 4-dichlorophenol	Tetrachloroethylene
Dichloropropane &	Thallium and compounds
Dichloropropene	Toluene
2, 4-dimethylphenol	Toxaphene
Dinitrotoluene	Trichloroethylene
Diphenylhydrazine	Vinyl Chloride
Endosulfan and metabolites	Zinc and compounds

List any other toxicants or chemicals known or anticipated to be present in the discharge.

END OF SECTION 333100